## **Duke MQM Application:**

Deadline: Nov 29<sup>th</sup>, 2016

## **Essays:**

## **Short answers:**

1. What do you hope to gain from the MQM program, and how will it support you in your personal and professional goals? (4000 char 250-350 words)

"It's really hard to design products by focus groups. A lot of times, people don't know what they want until you show it to them." Inspired by Steve Jobs, the founder of Apple Inc., I have a dream to become an entrepreneur who runs a technology company that changes the world. As an undergraduate, I equipped myself with basic technological knowledge by studying computer engineering, practicing my problem-solving skills. In order to become a successful business owner, I know that only possessing a technical background is not enough. The Master of Quantitative Management program (MQM) at Duke offers me an opportunity to further improve the skills I already have and fill in the blanks that I need to achieve my goal.

"Data Science for Business" (DSB) is the first course that caught my eyes while browsing the MQM website. During my undergraduate period, using different data structures and algorithms to efficiently process data, I only mastered programming skills, rather than analyzed the significance behind the data. Desirably, the DSB and other data science classes include aspects that I am interested in, such as "the core ideas of data mining." My dream, being a business owner, requires me to make clever decisions by interpreting data, not merely processing them. What's more, my career goal is not limited to communications between programmers and technicians. Rather, to inform clients about how to make intelligent choices, I see myself analyzing data, presenting and explaining results to them. Data Science classes in the MQM program will help me achieve this goal.

To me, finance could fit with data science. As I took part in a stock simulation competition while interning at Morgan Stanley, I wrote a program in C++ to calculate the discounted cash flow (DCF) of NVIDIA by using the financial data dated ten years back. Even though the DCF was lower than the market price, the stock kept increasing for months, due to the technology bubbles and sentiments of the public. It struck me that it would be brilliant if I could program models that included external aspects to predict the trend using big data. In addition, it is crucial to predict the quarterly earning reports of companies for one to do well in investing. All of these thoughts lead to one question --- "how to implement my ideas"? Sadly, I cannot systematically teach myself all, but the MQM program can. "Intermediate Finance" provides me the foundation of finance, which may lead to an implementation of my currently conjured project.

Lastly, the MQM program as a whole will prepare me to eventually manage a company. My parents are successful entrepreneurs who have their own business without business degrees. As their company grows, they have trouble expanding the company due to a lack of professional business knowledge. Several classes offered in MQM, such as "People Analytics" and "Strategic Management", will help me alleviate the problems that encumber my parents' company. Moreover, alumni of The Fuqua School of Business will expand my network, which may facilitate me when I run my own business.

In conclusion, The MQM program fits my short term goal, becoming a business analyst, and my long term goal, becoming a business owner. Meanwhile, my engineering and my programming skills will help me efficiently adapt to the classes and projects.

2. Give an example of a time you worked on a team, in a personal, professional, or volunteer setting. What role did you play on that team? What did you learn about yourself in the experience? (4000 char 250-350 words)

I have never imagined myself as a leader, but one experience changed me for the better. Last year, two of my friends Johnny, Ray, and I were enrolled in a digital design class together. We teamed up and started our project. We came up with the idea to make a dice game, called "The 15". We used Verilog to program hardware on a DE2 board.

According to our specialties, I suggested that we should divide the work: Johnny was in charge of logic designed, while Ray and I did the implementation and debugging. We started our project with ambition and enthusiasm. Everything went well at first.

After working on "The 15" for weeks, I was coding Johnny's design, and I noticed a fatal mistake that might require us to abandon all of our previous efforts and redesign it again. When I told Johnny the situation, he did not take it so well. While I thought we should start from scratch, Johnny insisted that his design was feasible. After a discussion, I compromised, and we tried his way again. A week later, as we dug deeper, more problems aroused. It turned out that I was right: the design was too flawed to proceed.

There were only two weeks left before the project was due, when we found out that we could not continue. It was disheartening and crestfallen. We all were upset and Johnny said, "We are never going to finish it on time," storming out of the lab; Ray took off his glasses and rubbed his eyes, sitting in front of the computer jadedly.

Although the failure was daunting, I never lost faith, not in my partners, nor in the project. As I grew up, I continue to have a tendency and persistence to finish anything I started it, no matter how difficult the task was. However, given the emotional state that my partners were in, I decided not to ask them to immediately start redesigning the project. Instead, I hosted a geeks night and grabbed beers with them, trying to alleviate their depressed emotions. We talked about

many things and relaxed. We did not meet for the weekend because I wanted them to rest their minds. I, on the other hand, started working from the scratch. I worked hard over the weekend because, in order to encourage them, I needed to give them hope by letting them see how we could accomplish the project. The following Monday, I gathered them back to the lab and presented the outline of our new design on the white board. I explained to them that the effort we devoted before was not unavailing, because we now had experience and could solve problems much faster than before. I told them, "We can do this! Let's finish it together." Then we got back to work.

While I worked with my partners on this project, I found myself to be a responsible and compassionate leader, who cares about teammates' sentiments and alternates work with rest. Moreover, I consider myself a team player, who is perseverant and willing to work diligently. I am an optimistic person who always has faith and hope, thus positively affecting others around me. My friends and coworkers claim that they feel a stream of energy when working with me. The game successfully ran and it was twice as fast as the benchmark; we finished it two days before the deadline. We worked indefatigably and the hard work paid off, as I always believed. To me, life is not without pain and failure; Being optimistic and assiduous will guide me from the darkness to the light in my future endeavors.

## Long Essay:

The "Team Fuqua" spirit and community is one of the things that set the Fuqua experience apart, and it is a concept that extends beyond the student body to include faculty, staff, and administration. When a new person joins the Admissions Team, we ask that person to share with **everyone in the office a list of '25 Random Things** About Yourself.' As an Admissions team, we already know the new hire's professional and academic background, so learning these '25 Random Things' helps us get to know someone's personality, background, special talents, and more.

In this spirit, the Admissions Committee also wants to get to know YOU – beyond the professional and academic achievements listed in your resume and transcript. You can share with us important life experiences, your likes/dislikes, hobbies, achievements, fun facts, or anything that helps us understand what makes you who you are.

Please present your response in <u>list form</u>, <u>numbered 1 to 25</u>. Some points may be only a few words, while others may be longer. Your complete list should not exceed 2 pages. Do not copy the essay question in the document you upload with your application.

1. I love extreme sports. I am a huge fan of skiing. I enjoy how I control the speed when skiing down a steep edge. I plan to train myself to become a freestyle skier in the future. Besides

- skiing, I also like skydiving and I want to be certified in the future. I enjoy the feeling when I am in the sky, so I am willing to try anything related to soaring, such as wingsuit flying.
- 2. During my adolescence, I trained for swimming competitions for 10 years in China. I've won many competitions in high school. I learned to persevere, be patient and methodical to achieve goals.
- 3. Since my first year of college, I have been in the UC Davis Swim club. My primary stroke is the breaststroke. My specialties are short distance and mid-distance. I won the first place in 50-yard breaststroke and the second place in 100-yard man's medley in the UCLA swimming meet in 2014.
- 4. Due to my swimming experience, I develop great interests in other kinds of sports: I am good at skiing, Ping-Pong, badminton, basketball, bowling and long distance running. I also dabble in tennis, working out and frisbee.
- 5. Starting every October, there is one more agenda appearing on my "To Do List": watching the NBA. As a diehard NBA fan, I relish the time watching games with my friends, rooting for the teams we support. I am a Cavaliers fan. I especially like watching Kyrie Irving play, who graduated from Duke. He is one of the reasons that I want to attend Duke, where the basketball environment is fabulous.
- 6. I like to travel, exploring different cultures and tasting different palatable cuisine. Within the three years that I have been in the United States, I have traveled to 15 states, including Alaska. Internationally, I have stepped in more than 10 countries.
- 7. Influenced by my parents who are both trained photographers, I become a shutterbug.
- 8. I have a tendency to challenge myself by doing things that are out of my comfort zone, because I believe that it is how I can learn and appreciate the world. I joined the Entomology Club and developed an intimacy with various insects and arachnids, which I detested and was scared of when I was young. After learning about insects, I no long dislike them but I am impressed by their delicate body structures and eusocial behaviors.
- 9. I like to take a hike every other weekend. To me, life is short, and I need to utilize the limited time to appreciate the nature more. I relish taking pictures of the view at the top of the mountain and observing different kinds of insects and plants on the way up.
- 10. I cook orthodox Chinese food. I also know how to cook stakes and other American food, which I taught myself.
- 11. I make desserts, such as egg tarts and apple pie. I was the proudest when I made the Italian dessert tiramisu.
- 12. I play guitar and had a band in high school. Now I occasionally play country songs for fun.

- 13. I teach myself piano during college.
- 14. My favorite band is Maroon 5. Besides Pop music, I also like country music, R&B and modern. Eason Chan, a Hong Kong artist, is my favorite Cantonese singer.
- 15. I am from Guangzhou, a city in southern China. Cantonese is my native tongue but we are required to learn and speak Mandarin and English in school.
- 16. My parents run a modeling business that involves people from all over the world. I started translating between models and clients when I was 15 years old.
- 17. I have been to many photo-shoots and TV Commercial scenes as an interpreter as well as a vice director. It was fun to yell "roll camera", "action", and "Cut!"
- 18. I am outgoing and enjoy public speaking. I never freak out and I feel excited on stage. I used to be part of the Model United Nation Club and was awarded "The Best Delegate" several times in different conferences I attended.
- 19. I like sharing my feelings and insights with friends. Every Friday night, I host a kick-off party and invite friends and their acquaintance over.
- 20. I have an interest in teaching. Back in China, I worked as a teaching assistant in Education First (EF), teaching children English. During the summer of 2015 in my hometown, I hosted a "Summer Boost" program to teach struggling middle school students Mathematics, Physics, Chemistry and English. According to their parents, they all made progress after taking my lessons.
- 21. In terms of book collections, I love biographies. I find biographies inspiring and intriguing and I draw lessons from successful people's failures. I critically analyze the way they handle things, and learn to expand my horizons by absorbing the intrinsic principles they value. Two of my favorite biographies are Steve Jobs' and Alfred Nobel's.
- 22. I keep diaries whenever I do something special or I am enlightened by a movie, a TV show or a book.
- 23. I have a habit of reading news daily. My favorite news site is the Wall Street Journal.
- 24. During the Morgan Stanley Financial Training program, I won second place in the stock simulation competition.
- 25. I adopted two female cats when they were born. I named one of them "Milky" and the other "Fluffy".